

ABOVE GROUND SOIL & WASTE PRODUCTS

The purpose of this leaflet is to provide you with helpful information on the use of Wickes' range of soil and waste system products for inside and outside, in domestic and small commercial installations.

All our products are economical and easy to use, enabling you to carry out any work in a quick and professional manner.

Above ground waste water systems take used dirty water to the main drain without allowing bad smells to escape. The following will help yours do the job it's intended to do.



MANUFACTURERS COMPATIBILITY TABLE	Soil BSEN1329 110mm	Pushfit Waste BS5254/BSEN1451		Solvent Weld Waste BSEN1566	
		32mm	40mm	32mm	40mm
HUNTER	YES	YES	YES	YES	YES
HEPWORTH	YES	YES	YES	YES	YES
MARLEY	YES	YES	YES	YES	YES
OSMA	YES	YES	YES	YES	YES
POLYPIPE	YES	YES	YES	YES	YES
TERRAIN	YES	N/A	N/A	YES	YES
BRETT	YES	YES	YES	YES	YES

KEEP INFORMED

- Look for other Good Idea Leaflets that could help you with your current project.
- Check that your Good Idea Leaflets are kept up to date. Leaflets are regularly changed to reflect product changes so keep an eye on issue dates.
- If you would like to be put on our mailing list for the Wickes catalogue, call
0845 274 1000
- Visit our website
wickes.co.uk

PUSH FIT WASTE SYSTEMS

Waste pipes must fall at a downward slope from highest point all the way to the drain. Water will not go up hill unless pumped. Waste pipes need to be supported or clipped at a maximum distance of 500mm, or they will sag, causing the waste water to pool and not flow properly. Any pooled stagnant water could freeze in cold weather, where eventually a build up of solid waste will block the pipe.

In normal use, a correctly installed waste system will never block (five minutes extra thought can save you hours work later on). It is still good practice to fit a rodding eye(s) in the system, so any blockages can be easily cleared.

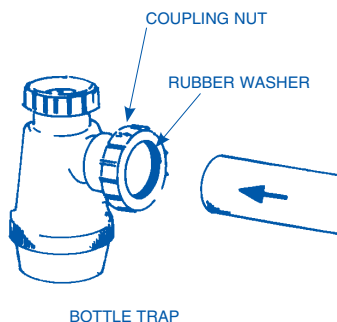
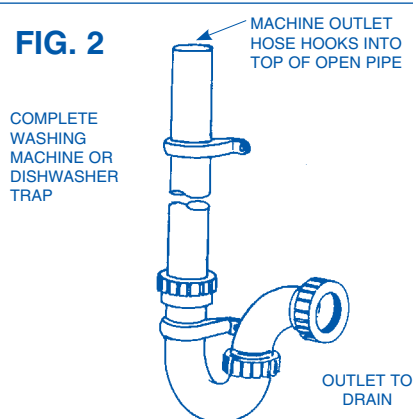
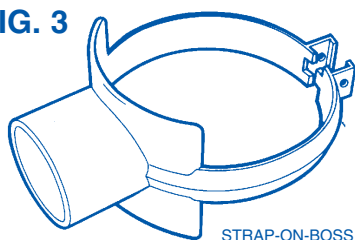
SOLVENT WELD WASTE SYSTEM

Wickes 1¼" (32mm) and 1½" (40mm) solvent weld, high temperature waste system (available in white or black) is manufactured to BSEN1566.

The solvent weld waste system can be used either in domestic dwellings or commercial and industrial installations. It is self extinguishing and unaffected by ultraviolet light, making it suitable for all internal and external applications.

After deciding on the pipe route, which fittings to use and the colour of pipe (white and black can be mixed, for inside and out), fix the supporting brackets in place. Cut pipes to length (assemble dry, making sure everything fits, when satisfied, disassemble).

Next clean the pipe ends and fitting sockets with a solvent cleaner or its equivalent. The pipe and fittings can now be 'solvent welded' together, using Wickes Solvent Cement (431-964).

FIG. 1**FIG. 2****FIG. 3**

NOTE: Measure twice, cut once (when solvent welding, you only get one go – so make sure it fits where you want it to!)

CONNECTING TO EXISTING OR OTHER MANUFACTURERS SYSTEMS

Solvent weld pipes and fittings are not directly interchangeable with a polypropylene pushfit waste system. However, they can be connected to this and other manufacturer's pipe, made to the same British Standard, by using compression fittings such as the 1½" coupling (431-902). See Manufacturers Compatibility Table (at the end of this leaflet) for full details.

PUSH FIT WASTE SYSTEMS

Wickes white 1¼" (32mm) and 1½" (40mm) push-fit waste system is manufactured in high grade polypropylene to BSEN1451. The fittings incorporate an 'O' ring seal which allows the pipe and fittings to be pushed together after applying a smear of Wickes silicone lubricant on to the chamfered end of the pipe.

NOTE: Don't use washing up liquid, oil or grease, as this will damage the seal, causing it to leak.

Polypropylene is chemically resistant to most acids, alkalis, household bleaches and detergents. It will also withstand intermittent discharges of boiling water, making it the ideal choice for kitchen sink, washing machine and dishwasher waste pipe.

COMPATIBILITY

Wickes waste pipe is compatible with all major manufacturers of polypropylene waste, to the same British Standard. See: Manufacturers Compatibility Table for full details. It can also be connected to other waste pipe materials by using the compression fittings, such as the 32mm tee (431-941) or the 40mm coupling (431-902).

NOTE: Joints on compression fittings need to be disassembled. The seal should then be stretched over the pipe and then reassembled, then carefully tightening the easy grip nut (by hand – no tools are needed).

TRAPS

Traps are designed to hold water that stops foul air from entering the room. Most traps can be dismantled to enable them to be cleaned out in case of a blockage. Wickes traps are suitable for use with all types of waste pipe. The trap needs to be disassembled, the seal should be stretched over the pipe and then re-assembled, tightening the nut by hand.

A standard bottle trap, **FIG. 1**, should be selected for new installations or if an existing waste pipe can be altered to suit the trap outlet height. However, an adjustable bottle trap can be used when you want to connect to existing pipework that cannot be altered.

Wickes also offer a specially designed shower trap (431-943), with a removable inner section that is accessible from the shower. This enables the trap to be cleaned out without having to remove the tray.

The pedestal traps (431-946) are ideal for fitting behind a pedestal basin, so that the trap and waste pipe are neatly hidden. There are two types of trap for the washing machine and dishwasher (431-915) including upstand or (431-942) with Nozzle (424-905 a double nozzle accessory converts 431-942 and 431-904 to allow connection of two appliances). You can replace your existing sink trap with a combination trap when you don't have room for adding an extra pipe. However, it is preferable to have a separate waste to the soil stack or gully. In this instance the flexible hose (420-181) from the dishwasher or washing machine will hook over the pipe of the washing machine trap (431-915).

FLEXIBLE CONNECTOR

Wickes supply a flexible connector for coupling awkward angle waste pipes to a trap.

TRAP OUTLET SIZE

1½" (40mm) TRAPS:

Kitchen sink
Waste disposal unit
Washing machine
Dishwasher
Bath
Shower

1¼" (32mm) TRAPS:

Wash hand basin
Bidet

WASTE PIPE RUNS

Waste pipes must discharge to a soil stack or gully. In older properties the pipe may discharge to an existing open hopper at first floor level, but must never be connected into a rainwater pipe. Plan the most direct route for the waste using 90° and 135° bends to change direction. All waste pipe should have a fall towards the drain of between 18-90mm per metre. The pipe must be supported with brackets at intervals of 500mm horizontally and 1.2m vertically. Pipe runs must be limited to 3 metres for 1½" (40mm) and 1.7 metres for 1¼" (32mm). If the route is complicated, instead of a bend at one corner, use a tee with a socket plug or access cap. This will allow you to clear any blockages that may occur later. Unlike the solvent weld system, polypropylene can be affected by ultraviolet light and we recommend that it be protected with paint when it is used outside.

OVERFLOW SYSTEM

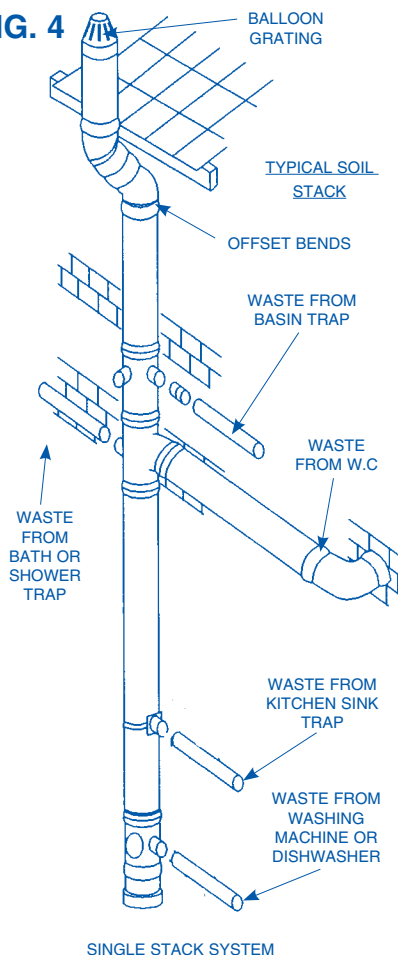
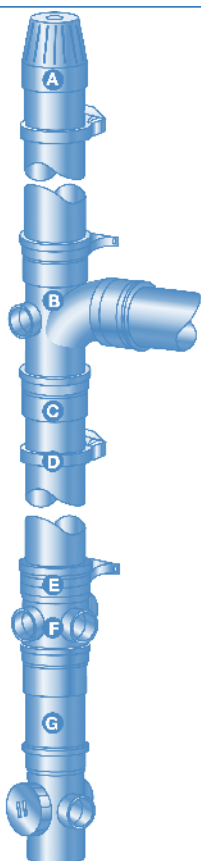
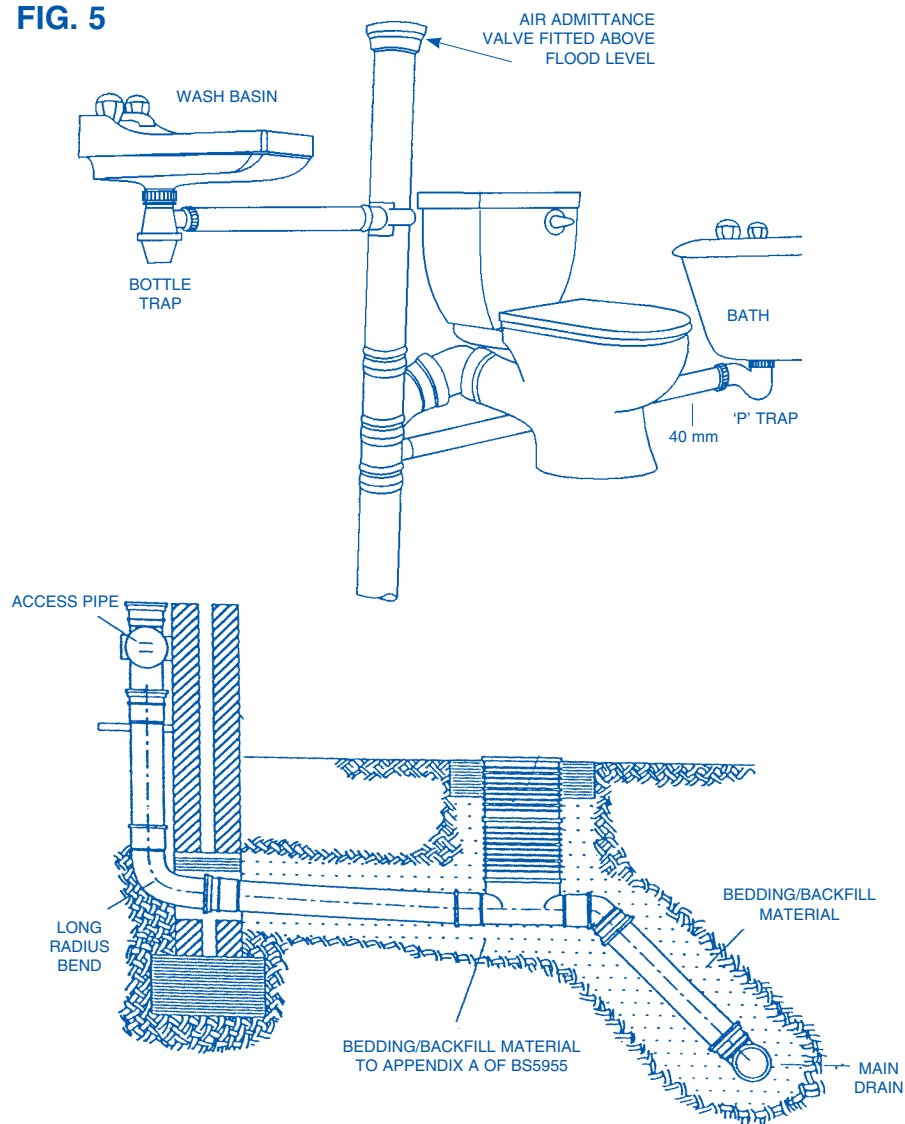
Wickes white push fit overflow system can be used on WC cisterns or water tanks in the loft. The pipe must be arranged so that if the ball valve fails, the overflow should discharge in a conspicuous position outside the building. This will very quickly let you know if there is a problem.

NOTE: Don't try to conceal it by running it to a gutter or hopper.

Fit the 90° Tank Connector to the cold water tank by drilling a hole with a hole cutter. Remove the rough edge, place one washer either side of the tank wall and tighten the backnut with a spanner. The pipe should be clipped every 600mm (24") or supported continuously to prevent it sagging. The loft overflow pipe normally passes through the fascia or soffit, under the gutter. Overflow pipes should have either a splayed end or be fitted with a tee to prevent icy draughts freezing the ball valve in an open or shut position.

CONNECTING WASTE PIPE TO EXISTING SOIL STACKS

Waste pipes may go through the wall to an existing hopper, gully or soil stack. Soil stacks are sometimes inside the house and may be made of either cast iron or plastic.

FIG. 4**FIG. 5**

- A** = 431-958 BALLOON GRATING
B = 431-968 92.5° BRANCH
C = 431-967 SINGLE SOCKET
D = 431-955 PIPE BRACKET
E = 431-956 SOCKET BRACKET
F = 431-970 BOSS PIPE
G = 431-954 PIPE 3m

However, if you are only adding in one connection to a soil stack we recommend the use of a Strap-on-Boss (431-959).

FIG. 3.

To connect to a plastic stack:

1. Use a 48mm hole cutter to drill a hole in the soil stack at a suitable position.
2. Mark the area that will be covered by the boss and clean both the marked area and the back of the boss flange with a solvent cleaner.
3. Apply Wickes Solvent Cement to both surfaces.
4. Ensuring that the boss is the correct way up (it's marked) quickly put it in position and tighten the ratchet clip.
5. Remove surplus cement with a clean rag.

You can also use the Strap-on-Boss to connect to a cast iron soil stack but the job is less easy. While you are drilling the hole you will need to lubricate the cutter with oil to prevent the teeth overheating. Instead of solvent cement fix the boss with clear silicone sealant and hold it in place with a 50mm long bolt and nut through the hole provided. So that the flange will fit tightly against the face of the pipe you will need a small wedge fitted behind the boss strap near the bolt hole. This is because a cast iron stack is normally slightly smaller than a plastic one.

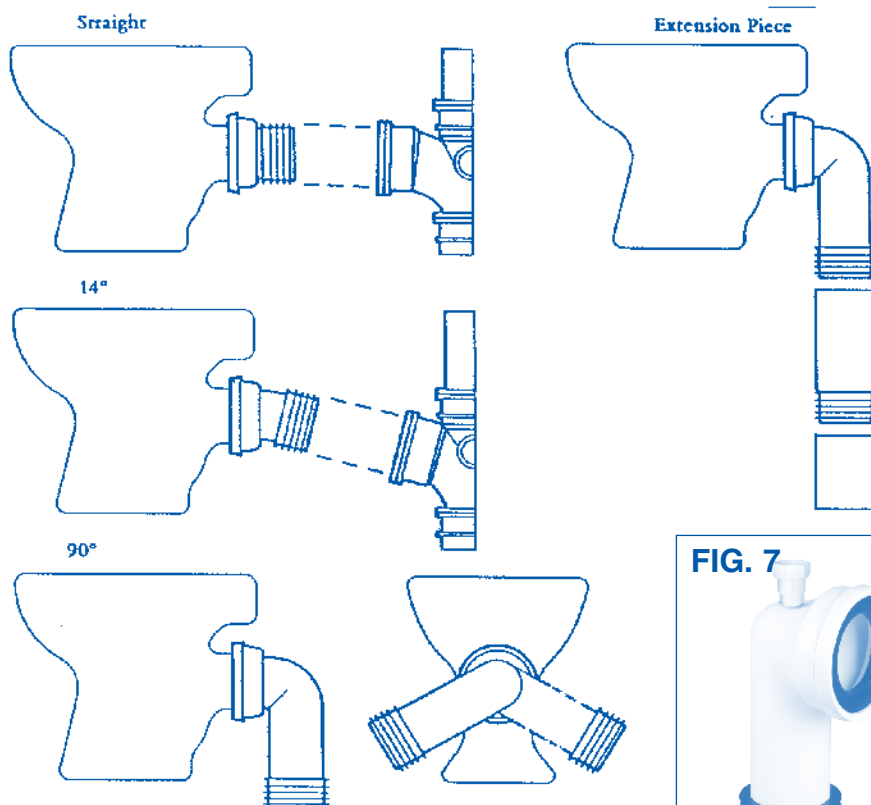
CONNECTING THE WASTE PIPE TO A WICKES SOIL STACK

As well as the Strap-on-Boss to connect to the 110mm PVCu soil pipe, you can connect waste pipe to the 'open' or 'closed' bosses on the Wickes Boss Pipe, the 92.5° Branch or the Access Pipe. The 'open' and 'closed' bosses will accept the rubber reducers without alteration. However the 'closed' bosses need to be drilled out with a 48mm hole cutter.

BUILDING OR MODIFYING A SOIL STACK.

Soil stacks collect waste from WCs, kitchen sinks, waste disposal units, washing machines, dishwashers, baths, showers, basins and bidets. **FIG. 4** shows a typical soil stack. For a new stack, a suitable position inside or outside should be found that aligns with a new or existing drain. Limit waste pipe runs to 3 metres for 1½" (40mm), 1.7 metres for 1¼" (32mm) and 6 metres for a WC. The pipe route must be as straight as possible.

To prevent foul smells from entering the building, an external soil stack, if closer than 3 metres, must finish at least 900mm above any opening into the house. It must offset over the eaves with 112.5° bends and have a vent cowl on

FIG. 6**FIG. 7**

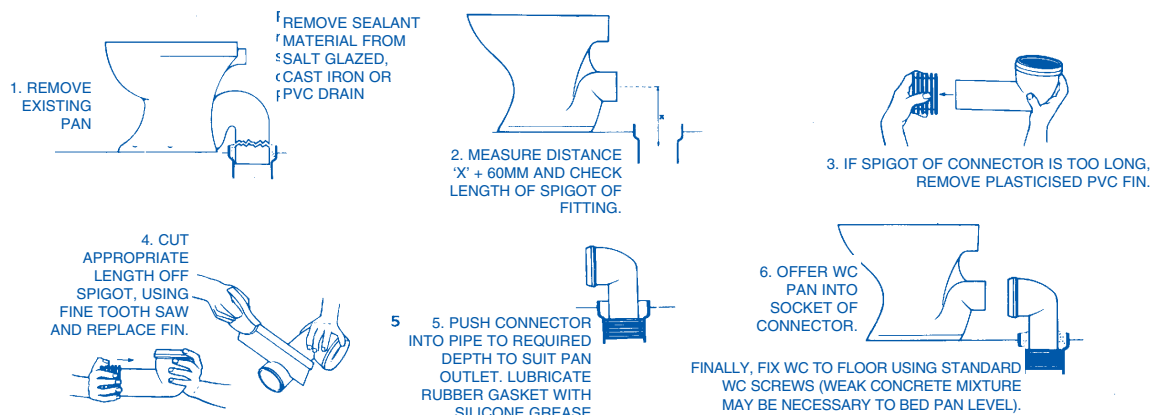
top to prevent birds nesting. Alternatively, internal soil stacks may terminate inside a building when fitted with air admittance valves. They must be solvent welded to the top of the stack above the overflow level of the highest appliance connected to the soil stack. See FIG. 5. An air admittance valve saves money because extra pipe and fittings to penetrate the roof are not needed and because the valve unscrews, it can also be used as a testing and rodding point.

The air admittance valve complies with Part H of the Building Regulations. Soil pipe brackets are needed to support the stack at 2m vertically and 1m horizontally. Two types are available:

1. Socket brackets that fit around expansion sockets to hold them in position.
2. Pipe clips that hold the pipe against the wall while allowing it to move between expansion sockets.

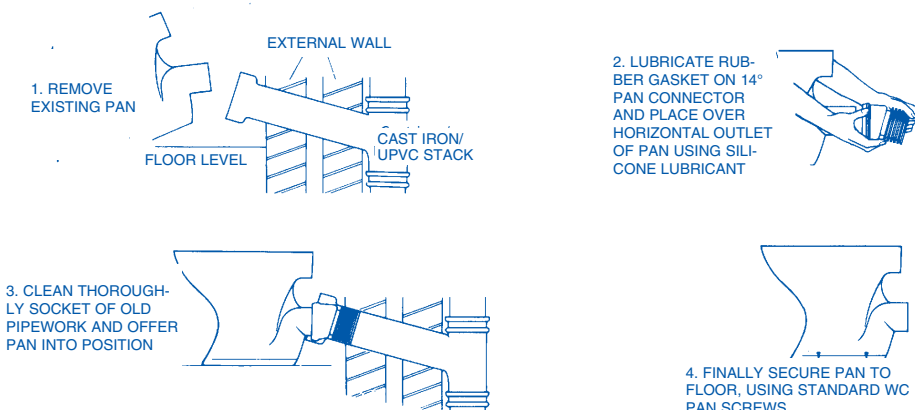
ACCESS

The Access Pipe is used as a rodding point. It may be put anywhere in the soil stack, but one is often put just above ground level so that the drains can be rodded down to the manhole. You should use the large radius Rest Bend (432-008) below ground, at the base of stacks to allow the rods and soil to pass easily to the underground drains. See FIG. 5.

FIG. 8 WC CONNECTIONS FOR REPLACEMENT INSTALLATIONS 90° BEND FIXING DETAILS

TESTING

All newly installed soil stacks should be tested in accordance with Part H of the Building Regulations (contact your Local Authority for advice). An air test should be carried out using a 'U' gauge. A Building Control Officer should witness this process. The equipment can be hired from a hire shop.

FIG. 9 14° BEND FIXING DETAILS

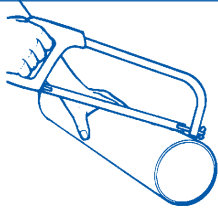
NOTE: Make sure your soil stack will pass the required test before asking the Building Control Officer to visit, this will save you a lot of time and effort.

TEST PROCEDURE

The water seals in all sanitary appliances should be filled and test plugs or bags put into the open ends of the pipework to be tested. One of the test plugs should be fitted with a tee piece. One branch of the tee goes via a flexible hose to the 'U' gauge; the other branch has a hose that goes to a small hand pump. Air is pumped into the soil pipe until a pressure of 38mm water gauge is obtained. The pressure must remain constant for not less than three minutes. If the system is not pressure tight, pump in more air while someone applies soapy water to the joints. Bubbles will form when a badly assembled joint is detected.

JOINTING PROCEDURE PUSH-FIT

FIG. 10



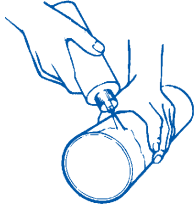
1. Cut pipe square, using a fine tooth saw. Wrap paper around pipe as guide line.



2. Chamfer end of pipe, using medium file or rasp. Standard lengths of pipe are already chamfered.



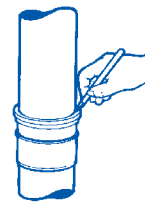
3. Remove swarf, dust and filings from end of pipe.



4. Lubricate end of pipe.



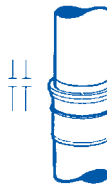
5. Check that ring seal is in position in housing.



6. Push pipe fully home mark lightly with pencil.



7. Spigot fittings will have mark already shown.



8. Withdraw pipe (10mm). This will allow for expansion. All fittings must be supported by a bracket.

Modern WC pipes only need a fall of 1° to 2.5° (18-45mm per metre), therefore the straight WC connector (431-975) as shown in **FIG. 6** is suitable. The horizontal soil pipe from the pan should join the new soil stack via the Wickes 92.5° Branch. To avoid unnecessary painting, use the white soil pipe for the horizontal WC run in the bathroom.

FIGs. 8 & 9 show how to replace WC pans to an existing ground floor drain and soil stack. If the WC connector is not long enough, use the extension piece (431-974) (all of these connectors simply pushfit on to the WC outlet and into the soil pipe). Use a little Wickes Silicone Lubricant to ease the connection.

NOTE: Don't use washing-up liquid, oil or grease, as this will damage the seal and cause a leak.

HAND BASIN or BIDET

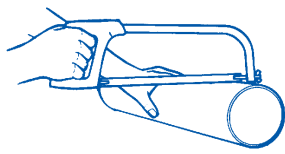
Should you wish to add a hand basin or bidet and don't have easy access to the soil stack or outside drain, the easy answer is to substitute the original 90° WC connector for a Wickes Boss 90° WC Connector (158-826). **SEE FIG. 7** This connector allows an additional waste pipe to be connected to the WC waste system. Unlike other connectors, the Boss Connector features a stop plug, which still allows the connection of a WC, even if the additional waste is not ready, this permits an easy connection to the waste outlet at any time in the future.

PVCu SOIL PIPE

The Wickes soil system is compatible with all other plastic soil pipe systems and is made of PVCu to BSEN1329. Two types of joints are used, pushfit and solvent weld. **FIG. 10** shows the pushfit procedures, whilst **FIG. 11** shows solvent welding.

JOINTING PROCEDURE SOLVENT WELD

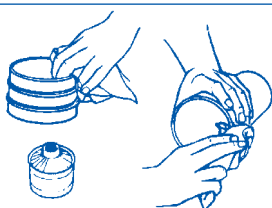
FIG. 11



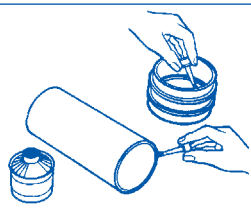
1. Cut pipe square, as with seal jointing.



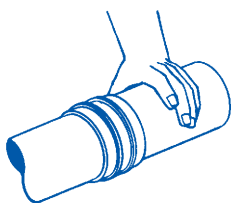
2. Remove all swarf dirt and dust.



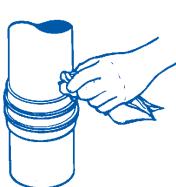
3. Clean surface of pipe and fittings with Solvent Cleaner.



4. Apply a liberal coat of Solvent Cement to both surfaces.



5. Immediately insert pipe into fitting with a twisting motion fully home.



6. Using a clean rag, clean off surplus cement.

The joint should be reassembled, strictly following the installation method and re-tested.

FIXING WC PANS

On either wood or concrete floors, WC pans should be fixed to the floor by screws, using the holes provided.

NOTE: The joints between the pan and floor, and the pan and soil pipe should never be made with a cement mortar mix. If you do, the pan won't be easy to move especially if there's a blockage in the pipe.

WASTE SYSTEMS

Jointing pushfit and solvent weld waste pipe is similar to that shown in **FIG. 10 & 11**, except that only a 5mm-expansion gap should be left in the pushfit sockets.

PROJECT SHOPPING LIST

Soil, traps, waste and overflow components stocked by Wickes are listed in the following charts. You should be able to install, replace or add to any system using some of these items. Use the 'I NEED' column to make up your own In-Store shopping list.

Soil Products 110mm (4")	Product Code	'I NEED'
Rubber Reducer 1¼" (32mm)	431-950	
Rubber Reducer 1½" (40mm)	431-951	
2m Black Soil Pipe	431-953	
3m Black Soil Pipe	431-954	
Pipe Bracket	431-955	
Socket Bracket	431-956	
92.5° Bend - Spigot Tail	431-957	
Balloon Grating	431-958	
Strap on Boss	431-959	
112.5° Bottom Offset Bend	431-961	
112.5° Top Offset Bend	431-962	
125ml Solvent Cement	431-964	
135° Bend	431-965	
Single Socket Connector	431-967	
92.5° Branch	431-968	
Access Pipe	431-969	
3 Socket Boss Pipe	431-970	
Air Admittance Valve	431-971	
14° WC Connector	431-972	
90° WC Connector	431-973	
Boss 90° WC Connector	158-826	
WC Connector Extension Piece	431-974	
Soil Slip Coupling	435-224	
90° WC Space Saver Connector	435-193	
WC Connector Pipe	435-231	
Straight WC Connector	431-975	
250ml Silicone Lubricant	432-013	

Overflow Products	Product Code	'I NEED'
90° Tank Connector	431-930	
90° Bend	431-931	
Tee	431-932	
Pipe Clips	431-933	
2m Overflow Pipe	431-934	

Solvent Weld Waste System	Product Code 1¼" (32mm)	'I NEED'	Product Code 1½" (40mm)	'I NEED'
White				
3m Waste Pipe	431-981		431-987	
90° Knuckle Bend	431-982		431-984	
Pair of Pipe Clips	431-920		431-909	
Straight Pipe Coupler	431-991		431-988	
92.5° Swept Bend	431-992		431-985	
135° Bend	431-993			
Tee			431-989	
Access Cap			431-986	
Reducer 40mm x 32mm			431-990	
125ml Solvent Cement	431-964			
Black				
Pipe Brackets Pk 2	159-903		159-904	
90° Knuckle Bend	159-905		159-906	
135° Bend	159-907		159-908	

Traps and Pushfit Waste System	Product Code 1¼" (32mm)	'I NEED'	Product Code 1½" (40mm)	'I NEED'
Standard Bottle Trap	431-927		431-913	
Adjustable Bottle Trap	431-919		431-904	
Shallow Seal Trap			431-914	
Bath Trap 76mm seal			431-903	
Washing Machine Trap			431-915	
Combination Trap			431-942	
Shower Trap – C P			431-943	
Pedestal Basin Trap	431-946			
Waste Pipe (2 metres)	431-901		431-900	
Conversion Bend	431-928		431-916	
Pair of Pipe Clips	431-920		431-909	
Pipe connector	431-921		431-905	
90° Bend	431-922		431-906	
135° Bend	431-923		431-907	
Tee	431-924		431-910	
Socket Plug	431-925		431-912	
Reducer 1½" - 1¼"			431-911	
Universal Adaptor	431-917		431-902	
Compression Tee	431-941		431-940	
Flexible Connector	431-945		431-945	
Universal Reducer	433-156			
Universal 90° Knuckle Bend	433-159			
Universal Reducer 40x32mm	433-156			
Chrome bottle trap	159-899			
'S' Trap	159-900		159-901	
Bath Trap with 50 mm seal			159-902	
Miscellaneous				
Washing Machine Hose	420-181			
Trap Hose Connector	431-935			

Whilst every care has been taken to ensure that the product design, descriptions, specifications and techniques of constructing the products are accurate at the date of printing. Wickes products will inevitably change from time to time and the customer is advised to check that the design, descriptions, specifications and techniques of constructing any of the products described in this leaflet are still valid at the time of purchase or placing an order.

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